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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,389	10/10/2000	Jin Pil Kim	8736.044.00	2251

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MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER	
BUI, KIEU OANH T	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/684,389	KIM, JIN PIL	
	Examiner	Art Unit	
	KIEU-OANH T BUI	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/28/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments as in the interview and in the remark of the amendment with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 9 is objected to because of the following informalities: on line 1 of claim 9, --The method—should be corrected as –A method—instead to avoid lacking of antecedent basis. Appropriate correction is required 9 (2nd reminder).

Claim Rejections - 35 USC 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> *A person shall be entitled to a patent unless --*
> *(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.*

4. Claims 1-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Corl (U.S. Patent Pub No. 2002/0035726 A1 or "Corl").

Regarding claim 1, Corl discloses "a system includes a virtual channel table for a broadcast protocol, comprising identification information in a bit stream syntax thereof, said identification information identifying each channel as one of an active and an inactive channel",

i.e., Table 1 of page 3, Table 3 of page 4, Table 7 of page 6, Tables 9 & 11 of page 7 clearly shows bit stream syntax for descriptors including in the virtual channel table (VCT) for a broadcast protocol including active and inactive channels based on their assigned or unassigned integer within the tables (see page 2, par. 0026 to 0030 for Virtual Channel Table and descriptors which identifying the validity of descriptors as also noted in page 5, par. 0069-0070).

As for claim 2, Corl discloses "wherein said virtual channel table is included in a program and system information protocol for a digital broadcast" (page 1, par. 0003-0006 for digital broadcast television and program guide included in the digital broadcast).

As for claim 3, Corl discloses "wherein said digital broadcast is any one of a digital terrestrial broadcast and a digital cable broadcast" (page 1/par. 0003-0006 for either a digital broadcast, digital terrestrial broadcast or digital cable broadcast is included).

Regarding claims 4-6, Corl shows "wherein said identification information sets a value of a program number field in the virtual channel table to "0" to indicate that a corresponding channel is an inactive channel"; "wherein said identification information sets a value of a number of elements field of a service location descriptor in the virtual channel table to "0" to indicate that a corresponding channel is an inactive channel"; and "wherein said identification information indicates that a corresponding channel is an inactive channel whenever a service location descriptor is not included in the virtual channel table"; i.e., Table 1 of page 3, Table 3 of page 4, Table 7 of page 6, Tables 9 & 11 of page 7 clearly shows bit stream syntax for descriptors including in the virtual channel table (VCT) for a broadcast protocol including active and inactive channels based on their assigned or unassigned integer within the tables (see page 2, par. 0026 to 0030 for Virtual Channel Table and descriptors which identifying the validity of

descriptors as also noted in page 5, par. 0069-0070); and those reserve bits as shown within Table 4 shows (explanation for bit stream syntax of Table 1) active and inactive virtual channels because some bits declare undefined and reserved bits whether this channel is valid or not.

As for claim 7, Corl discloses "wherein said identification information assigns at least one bit of a reserved field to indicate that a corresponding channel is an inactive channel", i.e., those reserve bits as shown within Table 4 shows (explanation for bit stream syntax of Table 1) active and inactive virtual channels because some bits declare undefined and reserved bits whether this channel is valid or not (see page 5/par. 0069-0070 for further on validity of data bits).

As for claim 8, Corl shows "wherein said reserved field is positioned in a statement of a for loop in a bit stream syntax of the virtual channel table" , i.e.,Table 1 of page 3, Table 3 of page 4, Table 7 of page 6, Tables 9 & 11 of page 7 clearly shows bit stream syntax for descriptors including in the virtual channel table (VCT) wherein the reserved field is positioned in a statement of a for loop in a bit stream syntax of the virtual channel table.

Regarding claim 9, Corl discloses "a method of broadcasting using a virtual channel table in a broadcasting protocol, said method comprising: including identification information in the virtual channel table, said identification information identifying a channel as being one of an active and an inactive channel, and transmitting the virtual channel table; and determining at a receiver whether the channel is inactive based upon the identification information defined in the virtual channel table, by parsing the virtual channel table", i.e., Table 1 of page 3, Table 3 of page 4, Table 7 of page 6, Tables 9 & 11 of page 7 clearly shows bit stream syntax for descriptors including in the virtual channel table (VCT) for a broadcast protocol including active

and inactive channels based on their assigned or unassigned integer within the tables (see page 2, par. 0026 to 0030 for Virtual Channel Table and descriptors which identifying the validity of descriptors as also noted in page 5, par. 0069-0070; and parsing the VCT as noted in page 1/par. 0010-0011).

As for claim 10, Corl discloses "wherein including identification information further comprises, when a channel is inactive, setting a value of a program number field in the virtual channel table to "0" and inhibiting a service location descriptor from being transmitted through the virtual channel table", i.e., those reserve bits as shown within Table 4 shows (explanation for bit stream syntax of Table 1) active and inactive virtual channels (with 0 as undefined) because some bits declare undefined and reserved bits whether this channel is valid or not (see page 5/par. 0069-0070 for further on validity of data bits).

As for claims 11-14, these claims for "wherein including identification information further comprises setting a value of the program number field and a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table to "0."; "wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a corresponding service location descriptor is not received in the virtual channel table"; "wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table is "0."; and "wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a program number field in the virtual channel table is "0" " are rejected for the reasons given in the scope of claims 4-6 as disclosed above.

Regarding claim 15, Corl discloses "in a digital television receiver, a method of inhibiting display of an inactive channel, comprising: receiving a digital broadcast signal comprising a virtual channel table; parsing the virtual channel table; retrieving identification information from the parsed virtual channel table indicating whether a channel is inactive; and, in response to said identification information indicating that the channel is inactive, inhibiting display of said channel when said channel is selected by a user", i.e., Table 1 of page 3, Table 3 of page 4, Table 7 of page 6, Tables 9 & 11 of page 7 clearly shows bit stream syntax for descriptors including in the virtual channel table (VCT) for a broadcast protocol including active and inactive channels based on their assigned or unassigned integer within the tables (see page 2, par. 0026 to 0030 for Virtual Channel Table and descriptors which identifying the validity of descriptors as also noted in page 5, par. 0069-0070); and parsing the VCT as noted in page 1/par. 0010-0011).

As for claim 16, Corl discloses "wherein retrieving the identification information comprises reading a value of a reserved field for identifying an inactive channel in the parsed virtual channel table", i.e., those reserve bits as shown within Table 4 shows (explanation for bit stream syntax of Table 1) active and inactive virtual channels because some bits declare undefined and reserved bits whether this channel is valid or not (see page 5/par. 0069-0070 for further on validity of data bits).

As for claims 17-18, Corl discloses "wherein retrieving the identification information comprises reading a value of a program number field in the parsed virtual channel table"; "wherein retrieving the identification information comprises determining whether a service location descriptor is found in the parsed virtual channel table" (Tables 1, 3, 7, 9 & 11 for program number field and service location with its ID).

Regarding claim 19-22, these claims for "a digital broadcast transmitter, a method of indicating an inactive channel, comprising: generating a virtual channel table, including within the virtual channel table information indicating the inactive channel; and transmitting the virtual channel table as part of a digital broadcast signal" are rejected for the reasons given in the scope of claims 15-18 above.

Regarding claim 23, Corl discloses "a digital television receiver, comprising: receiving means for receiving a digital broadcast signal including a virtual channel table, the virtual channel table including identification information identifying a channel as being one of an active and an inactive channel; detecting means for detecting the identification information in the virtual channel table; and inhibiting means for inhibiting display of the channel when the channel is selected by the user and the channel is the inactive channel", i.e., Table 1 of page 3, Table 3 of page 4, Table 7 of page 6, Tables 9 & 11 of page 7 clearly shows bit stream syntax for descriptors including in the virtual channel table (VCT) for a broadcast protocol including active and inactive channels based on their assigned or unassigned integer within the tables (see page 2, par. 0026 to 0030 for Virtual Channel Table and descriptors which identifying the validity of descriptors as also noted in page 5, par. 0069-0070).

As for claim 24, in further view of claim 23, Corl discloses "wherein the virtual channel table is included in a program and system information protocol for the digital broadcast signal" (page 1, par. 0003-0006 for digital broadcast television and program guide included in the digital broadcast).

As for claims 25-26, see claims 4-6 above.

Regarding claim 27, Corl discloses "a digital television (DTV) receiver, comprising: receiving means for receiving a digital broadcast signal including a virtual channel table, the virtual channel table including identification information identifying a channel as being one of an active and an inactive channel; a program and system information protocol (PSIP) decoder for detecting the identification information in the virtual channel table and providing an output indicating whether the channel is the inactive channel; and a user interface module for receiving the output of the PSIP decoder and inhibiting display of the channel when the channel is selected by the user and the channel is the inactive channel" (see claim 1, 15, 23 above with a PSIP decoder and technique as noted in page 1, par 0005 and par. 0010-0011 for DTV receiver for receiving PSIP data as well as parsing and displaying of data based on descriptors of VCT as noted earlier).

As for claims 28-34, these claims for "wherein the receiving means comprises: demodulation means for demodulating the digital broadcast signal and outputting a baseband signal; and decoder means for decoding the baseband signal and providing a PSIP data stream to the PSIP decoder"; "wherein the demodulating means comprises a demodulator"; and "wherein the decoding means comprises a transport decoder" are included within the PSIP decoder or

DTV receiver as discussed in claim 27 are also rejected for the reasons given in the scope of earlier claims above.

Conclusion

5. Guo (Pub. No. US 2004/0225846 A1) discloses an apparatus and a method for scheduled activation of system information tables in digital transport streams.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (703) 305-0095. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:30 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant, can be reached on (703) 305-4755.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Krista Bui
Art Unit 2611
March 2, 2005

KRISTA BUI
PATENT EXAMINER